

II. Listing of Claims

1-55. (Canceled).

56. (Currently amended) An isolated polypeptide comprising an the amino acid sequence of SEQ ID NO:29. ~~selected from the group consisting of:~~
 ~~a. an amino acid sequence having at least 70% 95% sequence identity to the amino acid sequence of SEQ ID NO:29; and~~
 ~~b. an amino acid sequence having at least 70% 95% sequence identity to a fragment of the amino acid sequence of SEQ ID NO:29 that binds to *B. anthracis* bacteria,~~
 ~~where the polypeptide binds to *B. anthracis* bacteria.~~

57. (Cancelled)

58. (Previously presented) The isolated polypeptide of claim 56, where the isolated polypeptide consists of the amino acid sequence of SEQ ID NO:29 that binds to *B. anthracis* bacteria.

59. (Previously presented) The isolated polypeptide of claim 56, where the isolated polypeptide consists of the amino acid sequence of SEQ ID NO:29

60. (Previously presented) The isolated polypeptide of claim 56, where the isolated polypeptide is a fusion protein further comprising a heterologous polypeptide.

61. (Previously presented) The isolated polypeptide of claim 56, where the isolated polypeptide further comprises a detectable reporter molecule or atom.

62. (Previously presented) The isolated polypeptide of claim 61, where the reporter molecule or atom is selected from the group consisting of: a fluorescent molecule, an enzyme that creates an optical signal, a chemilumiphore, a microparticle and a radioactive atom.

63. (Currently amended) The isolated polypeptide of claim 56, where the isolated polypeptide is a fusion protein comprising a green ~~fluorescent~~ fluorescent protein (GFP) and the amino acid.

64. (Currently amended) The isolated polypeptide of claim 63, where the ~~GFP-~~
Gp14 fusion protein binds to *B. anthracis* in the presence of a culture of *B.*
anthracis and *B. cereus* comprising a concentration of *B. cereus* ATCC-4342
that is up to 10,000-fold greater than the concentration of *B. anthracis*.
65. (Previously presented) The isolated polypeptide of claim 56, where the isolated
polypeptide comprises a pyridoxal-phosphate binding domain.
66. (Previously presented) A composition comprising an isolated polypeptide, the
isolated polypeptide comprising an amino acid sequence encoded by the open
reading frame 14 of the polynucleotide sequence at positions 11,829-13,319 of
SEQ ID NO:1, where the polypeptide binds to *B. anthracis* bacteria.
67. (Previously presented) The composition of claim 66, where the isolated
polypeptide is a fusion protein further comprising a heterologous polypeptide.
68. (Currently amended) The ~~isolated polypeptide~~ composition of claim 66, where
the isolated polypeptide further comprises a detectable reporter molecule or
atom.
69. (Currently amended) The ~~isolated polypeptide~~ composition of claim 68, where
the reporter molecule or atom is selected from the group consisting of: a
fluorescent molecule, an enzyme that creates an optical signal, a
chemilumiphore, a microparticle and a radioactive atom.
70. (Currently amended) The composition of claim 66, where the isolated
polypeptide is a fusion protein comprising a green ~~fluorescent~~ fluorescent
protein (GFP) and the amino acid.
71. (Previously presented) The composition of claim 66, where the polypeptide
comprises a pyridoxal-phosphate binding domain.
- 72-75. (Canceled).